

MICROCAPSULE CONTAINING PHASE-CHANGE MATERIAL AND NUCLEATING AGENT

Related Applications

[0001] This application is a continuation-in-part of Application Serial No. 10/618,108, filed June 30, 2003, which is a continuation application under 35 U.S.C. § 365 (c) of PCT Application No. PCT/KR01/02151 designating the United States, filed December 12, 2001. The PCT Application was published in English as WO 02/053370 A1 on July 11, 2002, and claims the benefit of the earlier filing date of Korean Patent Application No. 2000/86203, filed December 29, 2000. The contents of the Korean Patent Application No. 2000/86203, the international application No. PCT/KR01/02151 including the publication WO 02/053370 A1, and the prior U.S. application are incorporated herein by reference in their entirety.

Background of the Invention

Field of the Invention

[0002] The present invention relates to a microcapsule containing a phase-change material, to a method of producing the microcapsule, to an article having enhanced heat-retention capability by comprising the microcapsule, and to a method of producing the article.

Discussion of Related Technology

[0003] Dependence on energy imports in Korea is at 97.5 % as they occupy about 20 % of gross domestic imports. Korea is therefore a country with an excessive energy consumption structure. Under the circumstances, since the current price of oil is gradually increasing, there is an urgent need for development of an alternative energy, and to research and develop energy efficiency and energy saving techniques.

[0004] In order to improve the energy efficiency, a heat storage method using a phase-change material is being actively studied at present. The phase-change material is a material capable of absorbing or releasing a significant amount of heat during phase change